

CLAIMS

1. (amended)

A system for recycling a used plastic material as a resin
5 material, said system comprising:

(a) means for sorting used plastic materials by purpose
of recycling;

(b) means for crushing and melting said used plastic
material sorted;

10 (c) reviving means for regaining a desired property; and

(d) means for measuring a physical property of a sample
sorted for evaluation from a reclaimed plastic revived ; and

(e) indicating to said reclaimed plastic revived said
measured property as recycle history information.

15 2. A recycling system according to claim 1, wherein
said means for sorting used plastic materials by purpose
of recycling need not separate an impurity as long as a
physical property required for a reclaimed plastic is
satisfied.

20 3. A recycling system according to claim 1, wherein
said means for sorting used plastic materials by purpose
of recycling does not separate resins which are compatible
with each other.

25 4. A recycling system according to claim 1, wherein
said means for sorting used plastic materials includes
measurement means for a transparent resin portion in a plastic
waste material containing a transparent resin.

5. A recycling system according to claim 4, wherein
a resin waste material containing said transparent
30 resin is a housing for magnetic recording product, and said
transparent resin portion is a window material or a flange

in said housing.

6. A recycling system according to claim 1, wherein said means for sorting used plastic materials separates a resin containing an antistatic agent.

5 7. A recycling system according to claim 6, wherein said resin containing an antistatic agent is a resin in a lid portion of a magnetic recording product.

8. (amended)

A recycling system according to claim 1, wherein
10 said property regained by said reviving means is at least one property selected from the group consisting of density, water absorption, coefficient of expansion, tensile strength, elongation at breakage, flexural strength, flexural modulus, Izod impact strength, notched Izod impact
15 strength, heat deformation temperature, shrinkage factor, volume resistance, permittivity, weld elongation at breakage and tensile strength, MFR (melt flow rate), hue, degree of transparency, and texture.

9. A recycling system according to claim 1, wherein
20 said reviving means is at least one means selected from the group consisting of changing structure by an oxidation and reduction, addition, or elimination reaction, increasing or reducing molecular weight, controlling physical property by an additive, controlling by increasing or reducing content
25 of a constituent or changing composition, and controlling by blending resins.

10. A recycling system according to claim 1, wherein said measurement of a physical property of said reclaimed plastic includes a measurement of impact strength
30 and/or hue.

11. A recycling system according to claim 1, wherein

said measurement of a physical property of said reclaimed plastic includes a measurement of the content of a rubber component in said reclaimed plastic.

12. A recycling system according to claim 1, wherein
5 said used plastic material is a plastic material salvaged under specific conditions.

13. A recycling system according to claim 1, wherein
said used plastic material is at least one resin
selected from the group consisting of a styrene resin, a
10 polycarbonate resin, and an alloy of a polycarbonate resin
and an ABS resin.

14. A recycling system according to claim 1, wherein
said used plastic material is a plastic material salvaged
from a used magnetic recording product.

15 15. A recycling system according to claim 14, wherein
said used plastic material is a mixture of an ABS
(acrylonitrile/butadiene/styrene) resin and an AS
(acrylonitrile/styrene) resin or a mixture of a HIPS (high
impact polystyrene) resin and a PS (polystyrene) resin.

20 16. A recycling system according to claim 14, wherein
said used plastic material is a mixture of an ABS
(acrylonitrile/butadiene/styrene) resin and an AS
(acrylonitrile/styrene) resin salvaged from a used magnetic
recording product for broadcasting station.

25 17. A recycling system according to claim 14, wherein
said system is preliminarily provided with a means for
erasing information recorded on said used magnetic recording
product.

30 18. A recycling system according to claim 1, wherein
said used plastic material contains an antistatic
agent.

19. (amended)

A plastic material containing a reclaimed plastic obtained by a system for recycling a used plastic material as a resin material, wherein said recycling system comprises:

5 (a) means for sorting used plastic materials by the purpose of recycling;

(b) means for crushing and melting said used plastic material sorted;

(c) reviving means for regaining a desired property;

10 (d) means for measuring a physical property of a sample sorted for evaluation from a reclaimed plastic revived ; and

(e) indicating to said reclaimed plastic revived said measured property as recycle history information.

20. (amended)

15 An ABS (acrylonitrile/butadiene/styrene) resin containing an ABS resin obtained by a system for recycling a used plastic material as a resin material, wherein said recycling system comprises:

20 (a) means for sorting used plastic materials by purpose of recycling;

(b) means for crushing and melting said used plastic material sorted;

(c) reviving means for regaining a desired property;

25 (d) means for measuring a physical property of a sample sorted for evaluation from a reclaimed plastic revived ; and

(e) indicating to said reclaimed plastic revived said measured property as recycle history information.

21. (amended)

30 A polycarbonate resin containing a polycarbonate resin obtained by a system for recycling a used plastic material as a resin material, wherein said recycling system comprises:

(a) means for sorting used plastic materials by purpose of recycling;

(b) means for crushing and melting said used plastic material sorted;

5 (c) reviving means for regaining a desired property;

(d) means for measuring a physical property of a sample sorted for evaluation from a reclaimed plastic revived ; and

(e) indicating to said reclaimed plastic revived said measured property as recycle history information.

10 22. (amended)

A resin shaped article containing an ABS (acrylonitrile/butadiene/styrene) resin comprising an ABS resin obtained by a system for recycling a used plastic material as a resin material, wherein said recycling system
15 comprises:

(a) means for sorting used plastic materials by purpose of recycling;

(b) means for crushing and melting said used plastic material sorted;

20 (c) reviving means for regaining a desired property;

(d) means for measuring a physical property of a sample sorted for evaluation from a reclaimed plastic revived ; and

(e) indicating to said reclaimed plastic revived said measured property as recycle history information.

25 23. (amended)

A resin shaped article containing a polycarbonate resin comprising a polycarbonate resin obtained by a system for recycling a used plastic material as a resin material, wherein said recycling system comprises:

30 (a) means for sorting used plastic materials by purpose of recycling;

(b) means for crushing and melting said used plastic material sorted;

(c) reviving means for regaining a desired property;

(d) means for measuring a physical property of a sample
5 sorted for evaluation from a reclaimed plastic revived ; and

(e) indicating to said reclaimed plastic revived said measured property as recycle history information.

24. A resin shaped article according to claim 22 or 23, wherein said article is a magnetic recording product.

10 25. A method for reprocessing a used ABS resin (A), said method comprising:

separating from a used product an ABS (acrylonitrile/butadiene/styrene) resin in an independent form or in the form of a mixture with another resin, and

15 incorporating into said used ABS resin (A) separated an unused ABS resin (B) and/or another used ABS resin (C) to improve said used ABS resin (A) in physical property.

26 A reprocessing method according to claim 25, wherein an ABS (acrylonitrile/butadiene/styrene) resin is
20 separated in the form of a mixture with an AS (acrylonitrile/styrene) resin from said used product.